

Stages and New Mexico Content Standards

OVERVIEW

Stages includes two major software components: (a) informal assessment software and (b) curriculum software. Stages informal assessment software is instructional in nature, providing activities with constructive feedback and opportunities for the learner to explore and choose. Stages curriculum software is a collection of interactive daily instructional programs appropriate for learners at each Stage.

Stages software enhances the New Mexico's assessment process because:

- 1. Stages aligns with the New Mexico Content Standards and Expanded Benchmarks.**
- 2. Stages generates records of achievement for performance-based assessment.**
- 3. Stages provides learners with the opportunity for increased independence.**
- 4. Stages assists the learner's IEP team with selecting assistive technology and assessment tools.**

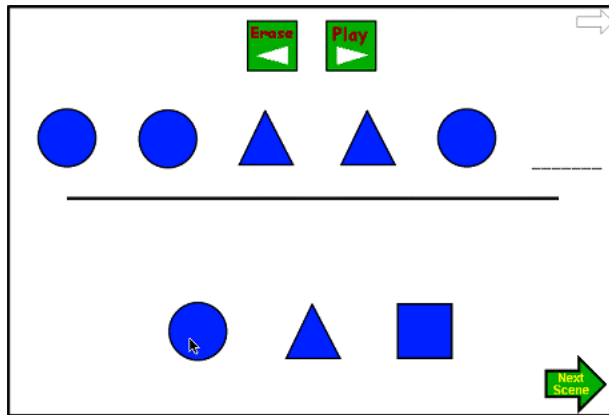
1. Stages aligns with the New Mexico Content Standards and Expanded Benchmarks.

Stages ensures meaningful and effective access to general curriculum areas for learners who require modifications in order to participate in statewide assessment. Stages content aligns with the expanded academic benchmarks for students with severe disabilities in Math and Language Arts. Please refer to the sections entitled "How Stages Correlates with New Mexico Expanded Benchmarks" and "How Stages Correlates with New Mexico Content Standards" for detailed matching to both the expanded and general academic standards. Stages can help the learner's instructor and other IEP team members determine whether alternate assessment is appropriate.

2. Stages generates records of achievement for performance-based assessment.

During Stages software activities, the instructor can print directly from any screen to capture a learner-generated product as a benchmark. At the end of each activity, a report with instructional data about the time spent, choices made, response accuracy or work product, input method, prompt type, and time/date stamp are displayed with the learner's name. The instructor may wish to then print that screen or save the information as a text-format electronic file.

Observation guidelines and forms in the Stages kits help the instructional team make the most out of an activity session. The data-gathering features of the software enable the observer to focus on noting the learner's behavior and thinking-out-loud responses. Two adults from the instructional team can work together: one adult can encourage the learner and the other can note valuable data about behaviors without being noticed by the learner. Alternatively if a video or still camera is available, it may be directed at the learner and the computer monitor to discreetly record interactions and other behaviors while one adult coaches. During the sessions, the learner will be less conscious of her performance being recorded, making her responses more candid. Over time, the collected data will provide evidence that the instructional team needs to build a complete picture of the learner's skill achievement.



Example screen shot from Stage Four: Create Patterns

3. Stages provides learners with the opportunity for increased independence.

The feedback in Stages activities is encouraging and rewarding, providing a relaxed setting for exploring topics and demonstrating skills with minimal supervision. Many Stages activities include accessible choice-making opportunities. Functional skills activities include real-life community settings.

4. Stages assists the learner's IEP team with selecting assistive technology and assessment tools..

An objective of Stages software is to provide several options for input methods and other settings so that the learner's instructor, parents, and others in the IEP team can determine his ideal learning and communication environment. Different devices, auditory feedback, speeds and prompts are among the variables.

SUMMARY

Stages augments the New Mexico assessment cycle. The Stages software is a comprehensive benchmark tool to assist the instructional team in collecting valuable information on learner skill achievement, determine assessment strategy, and discover the learner's abilities and thinking approach.

How Stages Correlates with New Mexico Expanded Benchmarks¹

All Content Areas Expanded Benchmarks and Performance Standards

Cluster 1: Basic levels of alertness and attention.

(2) The student attends to interesting stimuli for at least a few seconds at a time on a regular basis. This attention may be demonstrated by physical orientation toward the stimulus, when possible, and change in previous activity or behavior.

Related Stages Assessment Activities:

Stage One: Press and Hold, Press and Release

- These activities offer prompts and simple animations to encourage and captivate the learner while the instructor activates an input device.

Cluster 2: Joint attention.

(5) The student consistently responds to most others' attempts to initiate interaction.

(8) The student recognizes that actions have consequences.

Related Stages Assessment Activities:

Stage One: Press and Hold, Press and Release

- Using an appropriate input device, the learner activates the animation sequences independently in response to gentle prompting.

Math Expanded Benchmarks and Performance Standards

Cluster 3: Basic numeracy concept development.

(1) The student matches like objects.

(4) The student groups similar objects together (classification).

Related Stages Assessment Activities:

Stage Three: Category Identification: Animals, Clothing, Vehicles

Object Identification: Animals, Toys, Food

- The *Category Identification* activities present the learner with several objects. A prompt asks the learner to identify the object that fits the category.
- In *Object Identification* activities, the learner sees an object, then identifies the same object from a group of objects on the screen.

¹ Information from New Mexico Expanded Benchmarks and Performance Standards Across Content Areas, (Accessed May 28, 2002). Source: <http://www.star.nm.org/sde/resources/standards.htm>

(2) The student matches patterns/textures.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Continue/Fill-In Patterns, Create Patterns

- *Math Readiness* activities in Stage Four introduce the learner to patterns using shapes, color, and sound, have them continue patterns, and allow them to generate their own patterns.

(6) The student counts objects up to 5.

(7) The student rote counts to 10.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Counting

- *Counting* includes a number line and groups of objects on the screen.

Cluster 4: Rational counting.

(2) The student identifies numerals from 0 to 9 in any communicative modality.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Number ID

- The learner identifies numbers corresponding to number words in *Number ID*.

(4) The student compares sets of objects by counting.

(9) The student distinguishes quantities.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Counting, Estimating

Stage Five: Problem Solving: Number Guess

- Stage Four *Counting* includes simple animations of familiar objects. *Estimating* focuses on the development of the learner's math vocabulary concepts.
- In Stage Five *Number Guess*, the learner can demonstrate skills in comparing numbers within a small range as specified by the instructor.

(6) The student uses money as a unit of exchange.

(7) The student recognizes money in different forms.

Related Stages Assessment Activities:

Stage Six: Money Names, Counting Money, Money Equivalents

- In Stage Six, *Money* questions are tied in with realistic scenarios.

(8) The student distinguishes between positional concepts.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Spatial Relationships

- This activity asks the learner to determine how objects are positioned in relation to each other.

Cluster 5: Numeral identification and place value.

(2) The student matches sets of objects with numerals.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Counting

- A number line is provided to aid the learner in counting objects on the screen.

(4) The student produces numerals when prompted.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Number ID

- Numbers are presented to the learner in the context of a telephone keypad and an elevator scene in the Number ID activities.

(5) The student identifies numerals are more or less than other numerals.

Related Stages Assessment Activities:

Stage Five: Problem Solving: Number Guess

- The *Number Guess* game in Stage Five involves narrowing number choices based on feedback saying, "That number is too high (or low)."

(11) The student uses one or more math concepts for functional purposes (e.g., time, measurement, counting, etc.).

Related Stages Assessment Activities:

Stage Five: Math: Charts and Graphs, Word Problems, Geometry, Fractions

Stage Six: Telling Time, Money Equivalents, Counting Money

- Stage Five *Math* activities assess the learner's progress in the four basic operations. *Geometry* presents the learner with volume, perimeter, and area word problems. *Word Problems* includes real-life problems with and without graphical aids.
- Money and time are two more ways that the learner works with numbers in Stage Six activities.

Language Arts

Expanded Benchmarks and Performance Standards

Cluster 3: Emerging communication.

- (2) The student intentionally communicates to others for a variety of purposes through any communicative modality on a regular basis.
- (3) The student consistently communicates for a variety of purposes in a way that most people could understand.
- (4) The student consistently communicates for a variety of purposes through a conventionalized system, such as sets of objects, pictures, words or gestures.

Related Stages Assessment Activities:

Stages Three and Six: Choose Activity

Stages Four, Five, Six, Seven: 'Explore' activities

Stage Seven: Making Sentences: Building Sentences, Writing Sentences
Making Stories

- In both Stage Three and Stage Six, the learner makes an independent choice of activity using the appropriate input device.
- The *Explore* activities give the learner an opportunity to spend any desired amount of time selecting objects on the screen using an input device.
- The *Building Sentences* activity in Stage Seven gives the learner a method of producing sentences using word walls at three levels of difficulty. Stage Seven *Writing Sentences* and *Making Stories* provides an accessible way for a learner to produce written expression. The text-to-speech option in both activities can be used to "speak" the learner's words aloud.

Cluster 4: Symbolic communication.

- (3) The student is able to follow simple directions in familiar and routine contexts.

Related Stages Assessment Activities:

Stage Five: Problem Solving: Tic-Tac-Toe

- The learner can demonstrate turn-taking skills in this accessible version of the classic game.

- (6) The student is able to use visual, auditory, or tactile information for information gathering purposes.

Related Stages Assessment Activities:

Stage Three: Object Identification: Animals, Toys, Food

Stages Four, Five, Six, Seven: 'Explore' activities

Stage Six: Stories: Cody, Mitchell, Meg, Adam, Ryan

- Each of the *Explore* activities in every Stage presents a multisensory introduction to a specific topic. Simple backgrounds help the learner focus on the objects on the screen.
- Stage Six *Stories* are short passages that show real people doing daily activities. The learner can advance at any pace and read and/or listen to the text of the story.

Cluster 5: Complex communication.

- (1) The student is able to use any communicative modality to demonstrate the understanding that graphic information (pictures, print, tactile materials) has meaning.
- (2) The student has a functional reading vocabulary through any communicative modality.

Related Stages Assessment Activities:

Stage Three: *Levels of Representation:* Photo, Drawing, Symbol
 Object Identification: Animals, Toys, Food
 Category Identification: Animals, Clothing, Vehicles
 Function Identification (Verbs): Clothing, Toys, Vehicles

Stage Five: *Reading:* Meaning, Context (High Frequency Words)
 Math: Charts and Graphs

Stage Six: *Stories:* Cody, Mitchell, Meg, Adam, Ryan
 Explore and Assess: Recognizing Signs

Stage Seven: *Making Stories*

- The learner can demonstrate skill in solving problems based on visual display of quantitative information and textual clues in Stage Five *Charts and Graphs* and *Mystery* activities.
- Stage Six *Stories* combine photographs, text, and/or sound to reinforce the learner's concept of word meanings. *Recognizing Signs* provides the learner with the chance to demonstrate knowledge of symbolic meanings of community signage.
- Stage Seven *Making Stories* gives the learner an opportunity to write about personal experiences using photographs (provided or custom) as writing prompts.

- (3) The student is able to write basic vocabulary through any print media.

Related Stages Assessment Activities:

Stage Seven: *Making Words:* Copy Words
 Making Sentences: Building Sentences, Writing Sentences
 Making Stories

- The Stage Seven *Building Sentences* activity provides word walls of three levels of difficulty so that the learner need not use a keyboard to demonstrate the ability to use vocabulary.
- *Writing Sentences* give the learner an opportunity to demonstrate ability to compose a sentence independently, with or without the accessible onscreen keyboard option.

- (5) The student is able to follow simple directions in new or different contexts.

Related Stages Assessment Activities:

Stage Five: *Math 'Explore' activities:* Charts and Graphs, Computation, Geometry, Fractions
 Problem Solving: Mystery Practice

- Learners in Stage Five listen and/or read for instructions and clues to learn how to solve problems. The learner consults the graphical labels for information necessary to make conclusions in Stage Five *Charts and Graphs*. This activity asks learners to interpret chart data that involves common items such as animals and money.

How Stages Correlates with New Mexico Content Standards²

Mathematics Grades K-4 Content Standards and Benchmarks

UNIFYING CONCEPTS AND PROCESSES

Content Standard 1: Students will understand and use mathematics in problem solving.

E. Students will use manipulatives, calculators, computer, and other tools as appropriate in order to strengthen mathematical thinking, understanding, and power to build upon foundational concepts.

Related Stages Assessment Activities:

Stage Six: Counting Money, Money Equivalents

- These activities relate to realistic scenarios. In *Money Equivalents*, the learner selects the combination of coins and bills that add up to an equivalent amount.

Content Standard 2: Students will understand and use mathematics in communication.

D. Students will explore mathematical ideas through the use of learning tools such as manipulatives, calculators, and computers.

Related Stages Assessment Activities:

Stage Five: Math: Geometry

- The learner determines area, perimeter, and volume with the help of visual aids on the screen.

Content Standard 3: Students will understand and use mathematics in reasoning.

D. Students will use patterns and relationships to analyze mathematical situations.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Explore Patterns, Continue/Fill-In Patterns, Create Patterns

- The learner creates and extends simple patterns using color, shape and sound.

² Information from New Mexico Curriculum Framework Content Standards in Mathematics and Language Arts, (Language Arts R.2 Adopted by NM State Board of Education June 16, 2000. Accessed May 28, 2002).
Source: <http://164.64.166.11/cilt/standards/>

Content Standard 4: Students will understand and use mathematical connections.

- A. Students will correlate existing impressions with abstract operations such as addition, subtraction, multiplication, and division.
- B. Students will relate various representations of concepts or procedures to one another.
- C. Students will recognize relationships among different topics in mathematics.

Related Stages Assessment Activities:

Stage Five: Math: Word Problems (+, -, x, ÷), Fractions, Geometry

- Visual aids help the learner make a connection between operations such as addition and multiplication in *Word Problems*.
- *Fractions* ask the learner to identify parts of a whole and parts of a group.
- *Geometry* makes the connection between operations and measurement of objects, e.g. addition and perimeter.

NUMBER AND OPERATION CONCEPTS

Content Standard 5: Students will understand and use numbers and number relationships.

- A. Students will construct number meanings through everyday experiences and the use of physical materials.
- B. Students will describe the numeration system by relating counting, grouping, and place value concepts.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Number ID, Counting

- The learner relates numerals to number of objects on the screen.

Content Standard 6: Students will understand and use number systems and number theory.

- A. Students will describe how to solve problem situations using number operations such as addition, subtraction, multiplication, and division.
- B. Students will relate mathematical language and the symbolism of number operations to problem situations and informal language.
- C. Students will identify problem structures that can be represented by addition, subtraction, multiplication, and division.

Related Stages Assessment Activities:

Stage Five: Math: Math Facts (+, -, x, ÷), Word Problems (+, -, x, ÷)

- The learner uses basic operations and an onscreen number line to solve problems in *Math Facts* and *Word Problems*

- D. Students will use models to relate fractions to decimals and to find equivalent fractions.

Related Stages Assessment Activities:

Stage Five: Math: Fractions

- The learner can demonstrate ability to select parts of a whole object and a fractional number of items out of a group. Questions include familiar items such as foods and animals.

Content Standard 7: Students will understand and use computation and estimation.

A. Students will model, explain, and develop proficiency with basic number facts and algorithms.

Related Stages Assessment Activities:

Stage Five: Math: Math Facts (+, -, x, ÷), Word Problems (+, -, x, ÷)

- The learner can demonstrate competency in the four operations with and without visual aids.

GEOMETRY AND MEASUREMENT CONCEPTS

Content Standard 8: Students will have a foundation in geometric concepts.

A. Students will describe, [model, draw,] and classify shapes.

Related Stages Assessment Activities:

Stage Five: Problem Solving: Mystery Shape

- The learner discovers the correct mystery shape by eliminating shapes that do not fit the attribute clues given in the activity.

C. Students will develop spatial sense.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Continue/Fill-In Patterns, Create Patterns, Spatial Relationships

- The learner identifies objects in relative positions such as “above/below” from scenes in *Spatial Relationships*.
- Sounds, shapes, and colors make the *Patterns* activities engaging for the learner.

E. Students will recognize and understand geometry in the world.

Related Stages Assessment Activities:

Stage Four: Shape ID

- The learner identifies shapes in scenes and in isolation, in photos and in drawings.

Content Standard 9: Students will understand and use measurement.

A. Students will understand the characteristics of length, [capacity, weight,] area, volume, time, money, [temperature, and angle].

Related Stages Assessment Activities:

Stage Five: Math: Geometry

Stage Six: Telling Time, Counting Money, Money Equivalents

- In Stage Five *Geometry*, the learner determines an object’s perimeter, area, or volume.
- Digital and analog clocks are included in Stage Six.

FUNCTIONS AND ALGEBRA CONCEPTS

Content Standard 12: Students will understand and use patterns and functions.

A. Students will recognize, describe, extend, and create a wide variety of patterns.

Related Stages Assessment Activities:

Stage Four: Math Readiness: Explore Patterns, Continue/Fill-In Patterns, Create Patterns

- After watching while the computer shows some patterns, the learner fills in missing pieces of patterns and creates her own pattern rules in these activities.

B. Students will represent relationships with tables and graphs.

Related Stages Assessment Activities:

Stage Five: Math: Charts and Graphs

- The learner can describe and explain what data is represented by a graph or chart in this activity.

Language Arts Grades K-4 Content Standards and Benchmarks

READING AND LISTENING FOR COMPREHENSION

Content Standard I: Students will apply strategies and skills to comprehend information that is read, heard, and viewed.

K-4 Benchmark I-A: Listen to, read, react to, and retell information.

Related Stages Assessment Activities:

Stage Five: Reading: Meaning

Stage Seven: Making Stories

- Stage Five *Meaning* activities increase the learner's vocabulary through reading, listening, and interacting.
- The learner can tell or retell stories with the aid of the accessible keyboard feature and photograph in *Making Stories*.

K-4 Benchmark I-B: Locate and use a variety of resources to acquire information across the curriculum.

Related Stages Assessment Activities:

Stage Five: Reading: Sounds (rhymes)

Stage Six: Stories: Cody, Mitchell, Meg, Adam, Ryan

- Stage Five *Sounds* activities increase the learner's familiarity with rhyming sentences.
- The *Stories* in Stage Six are multimedia picture books that the learner can explore independently.

K-4 Benchmark I-C: Demonstrate critical thinking skills to comprehend written, spoken, and visual information.

Related Stages Assessment Activities:

Stage Five: Math: All "Explore" activities

Problem Solving: Mystery Practice

Stage Seven: Making Stories

- Stage Five *Explore* and *Mystery Practice* activities demonstrate how to solve different kinds of problems. The learner needs to attend to the directions in order to complete the activities.
- Stage Seven *Making Stories* give the learner a way to relate her experiences in writing.

K-4 Benchmark I-D: Acquire reading strategies.

Related Stages Assessment Activities:

Stage Two: Nouns, Verbs, Attributes

Stage Three: All Activities

Stage Four: Reading Readiness: Letter ID, Letter Sounds

Stage Five: Reading: Sounds (rhymes), Meaning, Context

- Stage Two *Nouns, Verbs, and Attributes* activities expose the learner to new vocabulary.
- Stage Three activities extend the vocabulary from Stage Two and ask the learner to recognize objects, identify their functions and classify them.
- The learner demonstrates phonemic awareness and knowledge of alphabetic principles in Stage Four *Letter* activities
- Stage Five introduces the learner to high-frequency words, simple rhyming sentences, and interactive scenes depicting one-syllable vocabulary words.

WRITING AND SPEAKING FOR EXPRESSION

Content Standard II: Students will communicate effectively through speaking and writing.

K-4 Benchmark II-B: Apply grammatical and language conventions to communicate.

Related Stages Assessment Activities:

Stage Seven: Making Sentences: Building Sentences, Spelling and Grammar

- Stage Seven *Building Sentences* gives the learner a word wall so that she can demonstrate sentence-writing skills without using a keyboard.
- *Spelling and Grammar* is actually a collection of several activities, including: Spelling, Homonyms, Capitalization, Noun-Verb Agreement, Pronoun Use, Word Order, and a Custom option so the instructor can create sentences for the learner to correct.

K-4 Benchmark II-C: Demonstrate competence in the skills and strategies of the writing process.

Related Stages Assessment Activities:

Stage Seven: Making Stories

- The learner can write descriptions of familiar persons, places, or objects with the aid of a picture (included or custom) as a writing prompt. Written expression is accessible through an on-screen keyboard and text-to-speech feature.

LITERATURE AND MEDIA

Content Standard III: Students will use literature and media to develop an understanding of people, societies, and the self.

K-4 Benchmark III-A: Use language, literature, and media to gain and demonstrate awareness of cultures around the world.

Related Stages Assessment Activities:

Stage Six: Stories: Cody, Mitchell, Meg, Adam, Ryan

- The Stage Six *Stories* are about real people, including adults and children. Other activities in Stage Six refer back to the scenes from the *Stories* activities.